Office Action Summary	Application No.	Applicant(s)	
	09/912,470	BOYLE ET AL.	
	Examiner	Art Unit	
	YUWEN PAN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-9 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-9, 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/05/08 has been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 2-9, and 19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-9of copending Application No. 10/056,096. Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced copending application and the instant application are claiming common subject matter, as follows:

a wireless terminal comprising a ground conductor and a transceiver coupled to an antenna feed, wherein the antenna feed is coupled directly to the ground conductor via a capacitor formed by a conducting plate and a portion of the ground conductor.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2-4, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nghiem (US006114996A) in view of Murch et al (US005764190A).

Per claim 19, Nghiem discloses a wireless terminal (see figure 1) comprising a ground conductor (see figure 2 and item 212) and a transceiver (see column 6 and lines 58-65) coupled to an antenna feed (item 216). Nghiem does not teach that the antenna feed is capacitvely coupled to the ground conductor by means of a conducting plate separate from and opposed to a portion of the ground conductor. Murch teaches that the antenna feed is capacitvely coupled to the ground conductor by means of a completed flated conducting plate separate (figure 2 and item 9) from and opposed to a portion of the ground conductor (see figure 2, item 6, see column 3 and lines 15-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Murch with Nghiem's antenna to offset a reactance component corresponding to the imaginary part of the impedance of the antenna.

Per claim 2, Murch further teaches that the antenna feed is coupled to the ground conductor housing via a capacitor (see figure 2).

Per claim 3, Murch further teaches that the capacitor is a parallel plate capacitor formed by a conducting plate and a portion of the ground conductor housing (see figure 1).

Per claim 4, Murch further teaches the antenna feed is coupled to the ground conductor housing by capacitance between an inductive element and the ground conductor housing (see figure 1).

6. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nghiem (US006114996A) and Murch et al (US005764190A) in further view of Engblom et al (US006002367A).

Per claim 7, combination of Ngheim and Murch does not teach that the ground conductor housing is a handset case. Engblom teaches that the ground conductor housing is a handset case (see figure 1, column 2 and lines 43-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the references to provide a antenna within a small-size mobile phone.

Per claim 8, Engblom further teaches that the ground conductor housing is a printed circuit ground plane (see column 1 and lines 40-55, conductive first plate as the conductive pround plane having two layers).

Per claim 9, Ngheim further teaches that a matching network is provided between the transceiver and the antenna (see column 6 and lines 1-15).

Per claim 5, Nghiem doesn't teach that a slot is provided in the ground conductor. Engblom teaches that a slot is provided in the ground conductor (see figure 10B and item 5, column 2 and lines 52-53). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Engblom with Nghiem's device such that it would improve the bandwidth and matching feature.

Per claim 6, Engblom further teaches that slot is parallel to the major axis of the terminal (see figure 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUWEN PAN whose telephone number is (571)272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anderson D. Matthew can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yuwen Pan
February 28, 2008